

Amendments to the Claims

Please amend the claims to read as follows:

1 1. (Currently Amended) A system for an integrated manufacturing execution system,
2 MES, that unifies the production data for a manufacturing lot that moves from a current
3 production line to different production lines, comprising:

4 a database recording data pertaining to, a manufacturing lot ID identifying the
5 manufacturing lot, a current MES associated with the lot ID, MES rules and transactions
6 performed to manufacture the manufacturing lot identified by the lot ID;

7 a memory storing data recorded in the database;

8 a computer of the current production line, the computer communicating with the
9 database and with production line MESs of each of the different production lines to
10 which the manufacturing lot identified by the lot ID is moved to perform the transactions;

11 the database supplying the different production lines with MES rules of the
12 current production line; and

13 the database recording transaction data, for each transaction performed on the
14 manufacturing lot, in the current MES, ~~and whereby~~ the current MES unifies the
15 production data for the manufacturing lot.

1 2. (Original) The system as in claim 1 wherein, the database records transaction data
2 from each of the different production lines, the transaction data corresponding to the
3 MES rules of the current MES.

1 3. (Original) The system as in claim 1 wherein, the database records transaction data
2 from each of the different production lines, the transaction data including; track-in, track-

3 out data, and processing data and measurement data, which correspond to the MES rules
4 of the current MES.

1 4. (Original) The system as in claim 1, and further comprising:

2 a production computer of each of the different production lines supplying the
3 transaction data to the database.

1 5. (Previously Presented) The system as in claim 1, and further comprising:

2 the database recording a tool reserve to move the lot ID to a reserved tool of a
3 different production line for performing a next process step.

1 6. (Previously Presented) A method for unifying manufacturing capacity utilization
2 with a unified MES, comprising the steps of:

3 checking capacity utilization status of multiple tools for performing the next
4 process step on a manufacturing lot;

5 reserving one of the tools to perform a next process step;

6 transferring the manufacturing lot from a current production line to a backup
7 production line having the reserved one of the tools; and

8 performing the next process step in the backup production line, and
9 collecting process data and measurement data, which correspond to the MES rules of the
10 current production line.

7. (Original) The method as in claim 6, further comprising the step of:

storing the process data and manufacturing data of the manufacturing lot in the current production line MES.
8. (Previously Presented) The method as in claim 6, further comprising the step of:

defaulting the manufacturing lot to the next tool in the backup production line for the next process step.
9. (Original) The method as in claim 6, further comprising the steps of:

defaulting the manufacturing lot to the next tool in the backup production line for the next process step;

checking the capacity utilization of all tools to perform the next process step; and

reserving a selected one of the tools in a different backup production line to perform the next process step.
10. (Original) The method as in claim 6, further comprising the steps of:

defaulting the manufacturing lot to the next tool in the backup production line for the next process step;

checking the capacity utilization of all tools to perform the next process step; and

reserving the tool of the current production line to perform the next process step.